

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/036818 A1

(51) International Patent Classification⁷: **H04L 12/18**

(21) International Application Number:
PCT/US2004/032963

(22) International Filing Date: 6 October 2004 (06.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/509,325 7 October 2003 (07.10.2003) US

(71) Applicant (for all designated States except US): **THOM-
SON LICENSING S.A.** [FR/FR]; 46, Quai A. Le Gallo,
F-92100 Boulogne-Billancourt (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BICHOT, Guil-
laume** [FR/FR]; 26 rue de Montmuran, F-35630 la

Chapelle Chaussee (FR). **ZHANG, Junbiao** [CN/US];
1003 Sunny Slope Road, Bridgewater, New Jersey 08807
(US).

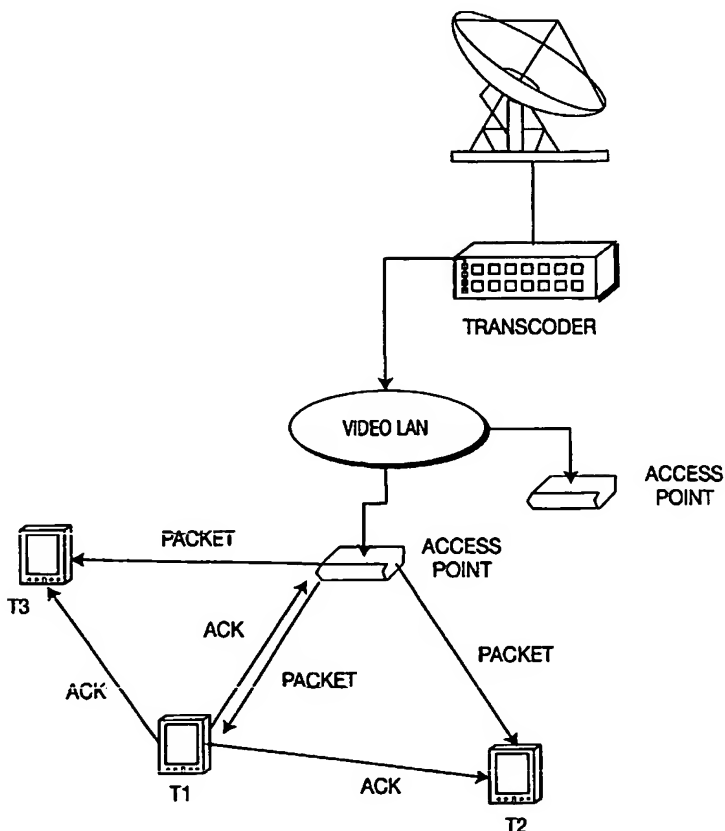
(74) Agents: **TRIPOLI, Joseph, S.?** et al.; Two Independence
Way, Suite #200, Princeton, New Jersey 08540 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: **MULTICAST OVER UNICAST IN A NETWORK**



(57) Abstract: A method is described for receiving a multicast in user devices in a network issuing a request to join a multicast group, identifying multicast data packets associated with the multicast group, monitoring transmissions of the multicast data packets to determine whether the identified multicast data packets are being transmitted in an already established unicast session and establishing a unicast session and processing multicast data packets if an already established unicast session does not exist. A method is described for receiving a multicast transmission in user devices in a network establishing a unicast session with a dedicated terminal, identifying multicast data packets associated with a multicast group, monitoring transmissions of the multicast data packets and processing the multicast data packets by the dedicated terminal. Additionally, an apparatus is described for accepting a request to join a multicast group, for identifying multicast data packets associated with the multicast group, establishing a unicast session, for encapsulating said multicast data packets in a unicast frame and for forwarding the unicast frame via the unicast session.

WO 2005/036818 A1



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.